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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/624,897	CHO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William J. Royer	2852	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 23 July 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other _____.   |

***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

**Specification**

In paragraph [0004], line 3, change "using the fixing roller" to --- using the fixing roller 10 ---.

In paragraph [0006], line 5, change "electrical signal measured" to --- electrical signal ---.

In paragraph [0006], lines 8, 9 and 10, change "11" to --- 10 ---.

In paragraph [0007], line 1, change "of the" to --- of a ---.

In paragraph [0007], line 1, change "using the" to --- using a ---.

In paragraph [0007], line 2, change "the predetermined amount of the" to --- a predetermined amount of a ---.

In paragraph [0021], line 3, change "the like elements" to --- like elements ---.

In paragraph [0022], line 2, after "to" insert --- the ---.

In paragraph [0022], line 2, after "in" insert --- the ---.

In paragraph [0023], line 1, after "device" insert --- 100 ---.

In paragraph [0023], line 4, change "a fusing" to --- the fusing ---.

In paragraph [0025], line 6, change "113C" to --- 113c ---.

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In paragraph [0026], line 2, after "roller" insert --- 110 ---.

In paragraph [0039], line 1, after "device" insert --- 100 ---.

In paragraph [0044], line 3, change "roller is" to --- roller 110 is ---.

In paragraph [0045], line 2, after "device" insert --- 100 ---.

### ***Reasons For Allowance***

The following is an examiner's statement of reasons for allowance:

Claims 1-10 and 19 are allowable over the prior art of record because the prior art of record fails to teach or suggest providing a fusing device with a fusing roller which includes a tubular heat pipe, a cylindrical roller which surrounds the heat pipe, and a heater which is installed between the cylindrical roller and the heat pipe; wherein a rubber layer having a predetermined thickness is formed on a surface of the cylindrical roller so as to form a fusing nip with a sheet of paper.

Claims 11-18 and 20 are allowable over the prior art of record because the prior art of record fails to teach or suggest providing a fusing device with a fusing roller which includes a tubular heat pipe, a cylindrical roller which surrounds the heat pipe, and a heater which is installed between the cylindrical roller and the heat pipe and generates heat; wherein a step is formed at both ends of the cylindrical roller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Relevant Prior Art***

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee '917, Lee et al, Lee '515 and Lee '907 each disclose a fusing device that includes a fusing roller that includes a cylindrical roller, heater and heat pipe.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Royer whose telephone number is (571) 272-2140. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "William J. Royer". The signature is written in a cursive, flowing style.

William J. Royer  
Primary Examiner  
Art Unit 2852

wjr  
September 29, 2004